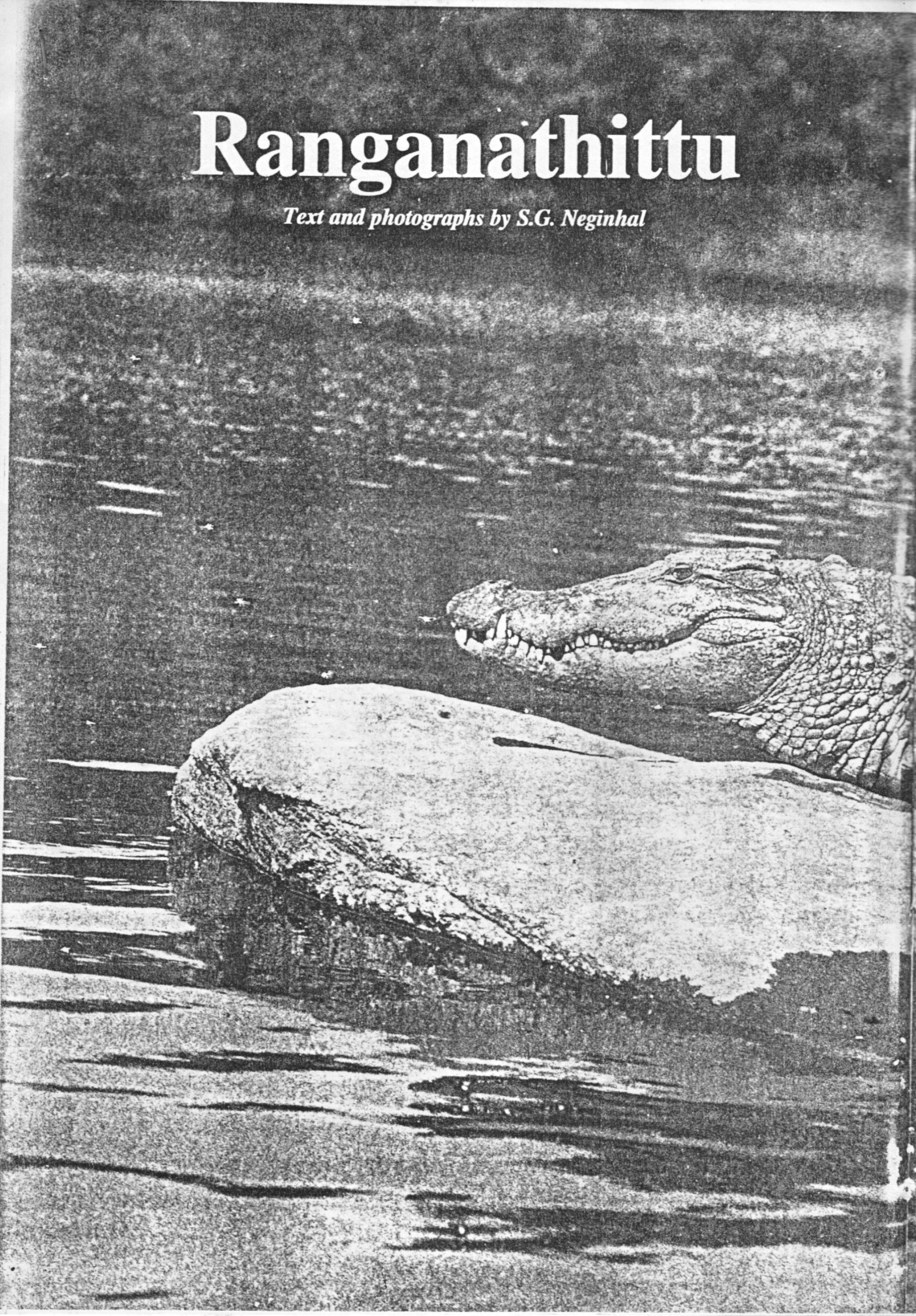
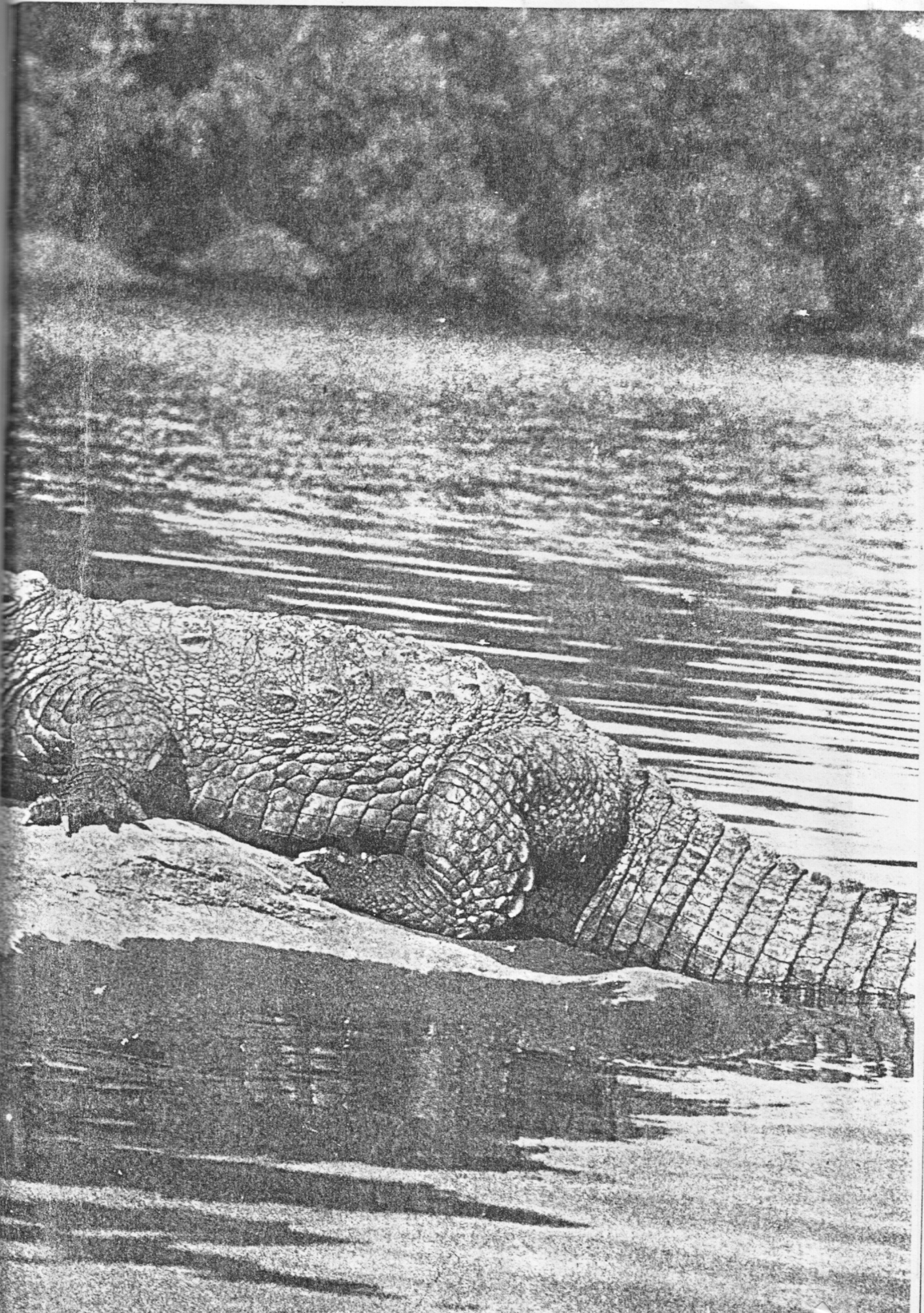
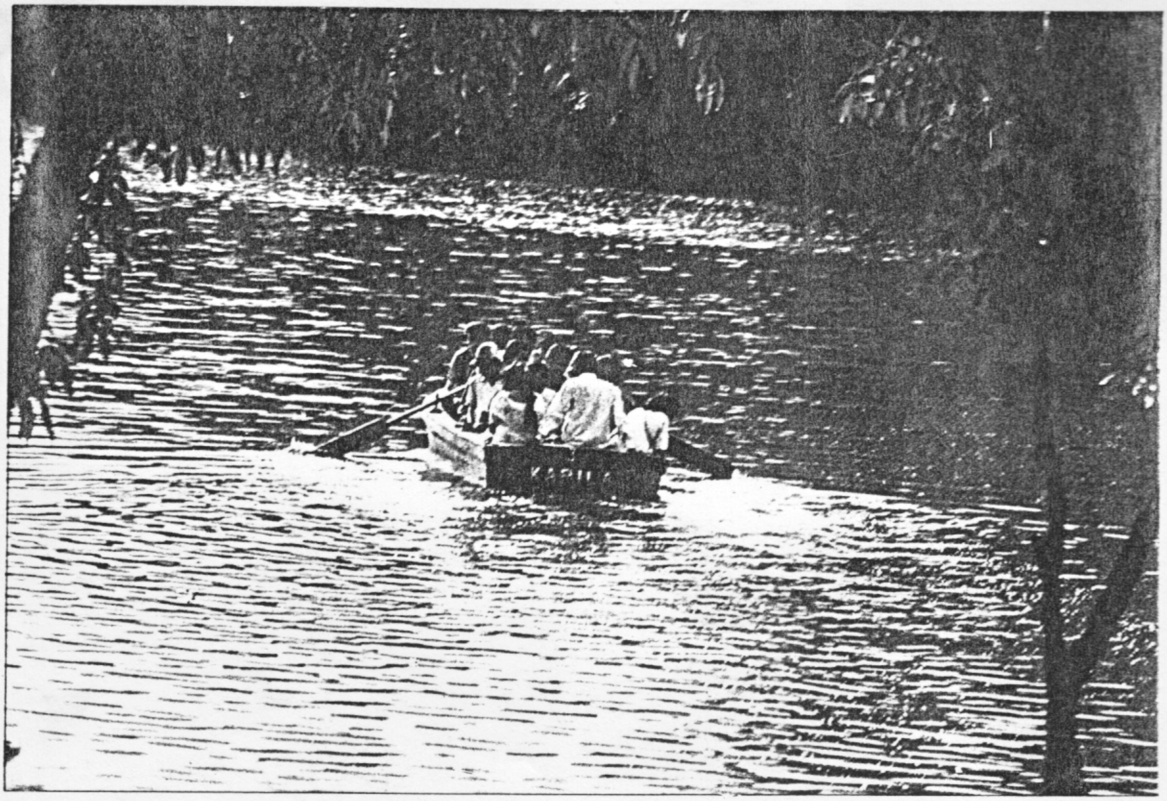
Ranganathittu

Text and photographs by S.G. Neginhal

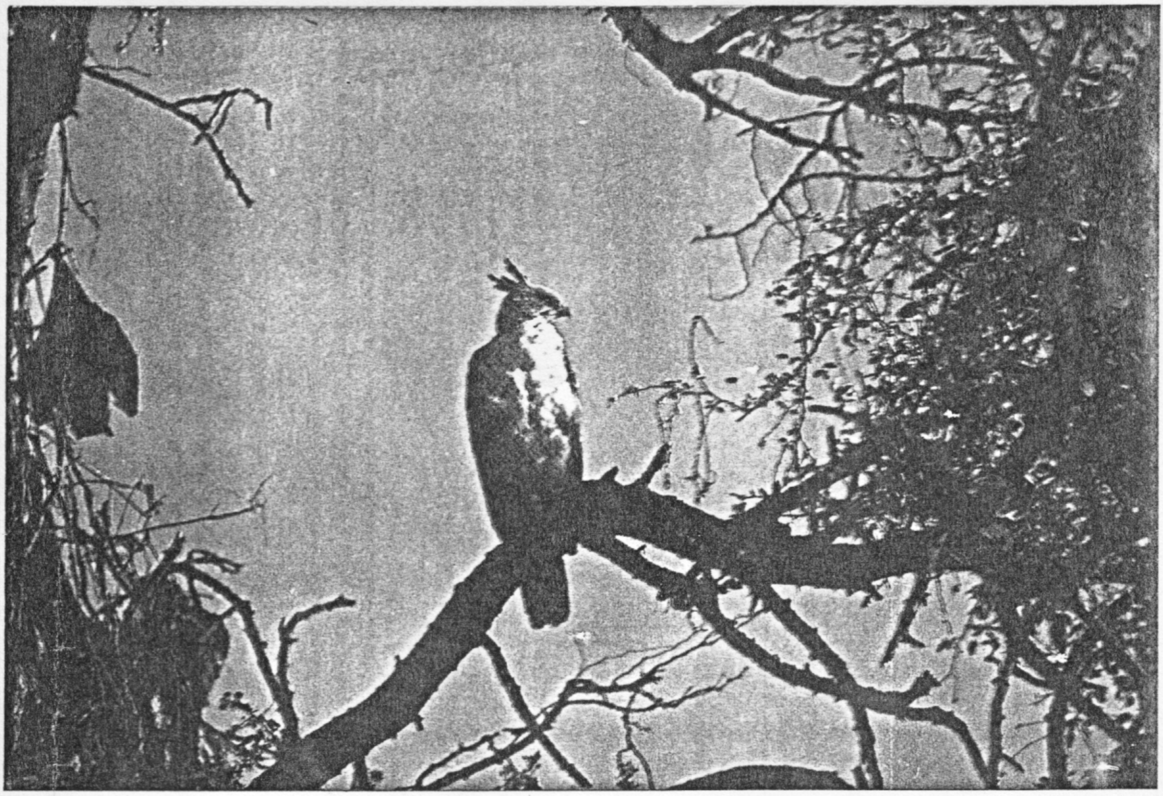




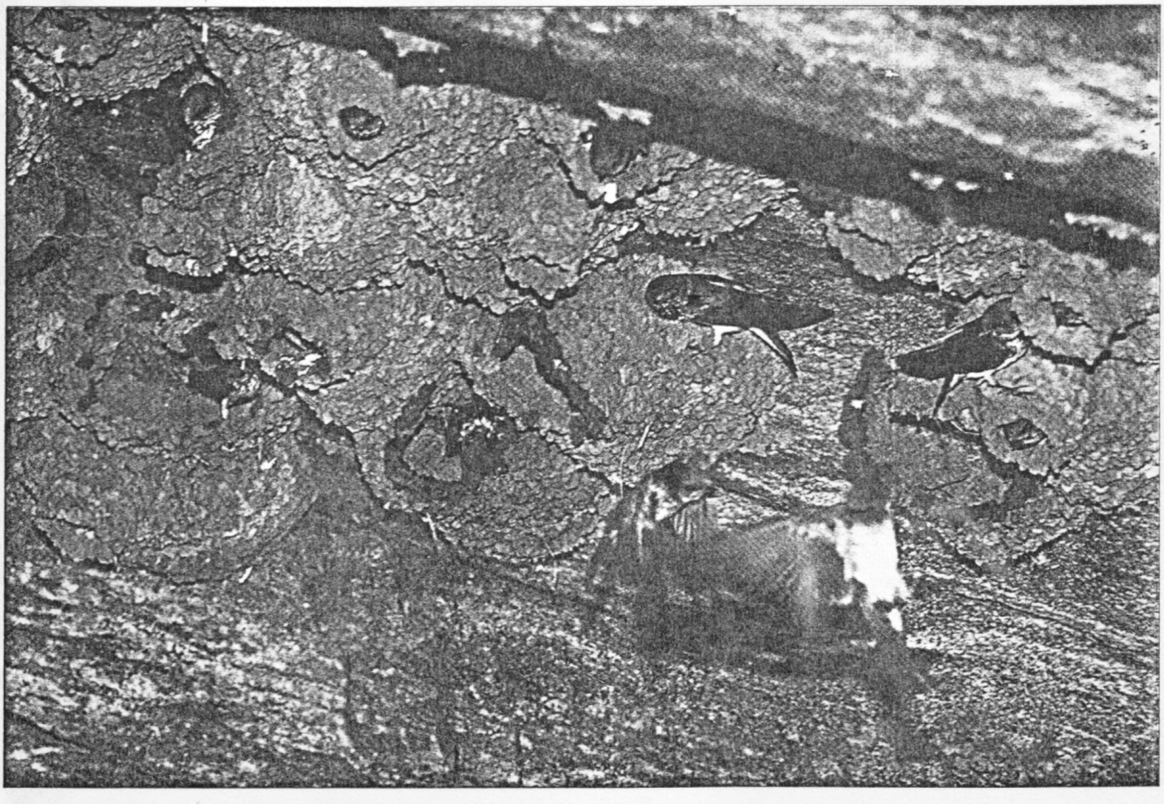


Visitors to Ranganathittu can imbibe the sights and sounds of this amazing wetland by rowing silently along in a boat.

A Lesser Whistling Teal, Dendrocygna javanica, *seen resting on the rocks by the side of the water.*



A Crested Hawk Eagle, Spizaetus cirrhatus, *keeps an eye out for potential prey from a vantage point overlooking the waters.*



Indian Cliff Swallow, Hirundo fluvicola, *nesting on a rock overhang.*

As I settled down in the rowing boat at Ranganathittu and got ready to photograph the heronry birds, my mind wandered. Memories of the past 25 years flashed by and transported me to days when the world was simpler, less toxic and more predictable. I first came to this small but beautiful bird sanctuary in May 1972. I then lived in Mysore and was the Wildlife Officer for four major sanctuaries, Bandipur, Nagarahole, B.R.T. Hills and Ranganathittu. For six long years I studied and protected these wild havens in my official capacity, and even after retiring I continue to maintain close contact visiting their green confines as often as I can.

It's quite easy to get to Ranganathittu from Mysore. As one drives along the Bangalore Road, after hardly 12 km., a turn to the left (at a junction known as Pashimavahini) followed by a drive of around three km. delivers one to the most famous heronry in South India. The drive to the Ranganathittu Bird Sanctuary is pleasant and scenic, the road fringed by lush green paddy fields, crisscrossed by a number of still-flowing, ancient canals. All this is a far cry from the concrete of urban centres and, speaking for myself, even short visits to such havens help to retain my sanity in a world going wrong.

Protecting Ranganathittu

Ranganathittu is a picturesque and silent wilderness. Here the Kaveri river bifurcates and flows into a small reservoir formed by a weir constructed across the flowing waters by one of the ablest Kings of Mysore, Kantheerava Narasaraj Wodeyar, about 350 years ago.

The reservoir was created to convey the waters to Srirangapatna, the historic capital, through an aqueduct that also served to irrigate paddy fields. It was a labour of love to fulfil the wishes of the King's consort Doddajamma after whom the canal was named. This aqueduct is a part of the living history of the area. It still transports water over the old abandoned bridge on the Mysore-Bangalore road at Pashimavahini! The impounding of the waters at Ranganathittu naturally encircled the higher areas in the river bed forming tiny islets covered with riverine vegetation consisting of Salix sp. *Terminalia arjuna* (Arjuna), Vitex sp., *Pongamia pinnata* (Karanj), Ficus sp., *Pithecellobium dulce* (Vilayati imbili), *Pandanus tectrorius* (screwpine), *Caesalpinia bonducella*, bamboos and sedges.

Water birds and waders were quick to spot new opportunities and have since been flocking here annually, to breed on the islets between June and October. These islets provide insulated niches surrounded by deep waters that in turn offer natural protection against predators like the mongoose; land monitors, jungle cats and civet and the monkeys that frequent the surrounding areas. Even humans cannot easily approach the heronries. But all this protection would amount to naught if the breeding birds were not simultaneously able to obtain food. Fortunately, both in the impounded waters and in the surrounding paddy fields, fish, tadpoles, frogs, lizards, reptiles, crustaceans, earthworms, molluscs and water-insects thrive in magnificent abundance. What is more, nesting-material from the luxuriant vegetation on the islets and along the banks, so essential in nidification, is also easily accessible. In a sea of hostility, nature thus formed a welcoming womb for its wards.

Places like Ranganathittu do not just happen. The credit for the declaration and existence of the bird sanctuary belongs to the late Dr. Salim Ali. He had travelled to Mysore 60 years ago to survey the birds of the then princely state (on the invitation of the Maharaja of Mysore). Here, quite literally, he accidentally stumbled upon a heronry. He was amazed to see the spectacular congregation of nesting waterfowl and waders. That evening on his return to Mysore city he prevailed upon the local authorities to declare the area a sanctuary for birds. In such high esteem was the old man held by the authorities that the very same evening orders were issued declaring Ranganathittu a bird sanctuary. That was July 1940! Today at least 14 species of birds breed at Ranganathittu, (see box).

Some observations

Long associations allow for intimate observations. Normally Little Egrets have parti-coloured black and yellow legs and feet but in the last 25 years, I have personally observed two or three pairs of Little Egrets with beautiful scarlet feet at Ranganathittu! These may be a subspecies and further detailed studies are needed. These particular birds also breed here.

Spoonbills and Purple Herons herald the breeding season. Nesting for them starts in February-March. Of late, Painted Storks *Mycteria leucocephala* seem to have joined the bandwagon of early breeders. In the seventies and eighties Spoonbills and Purple Herons nested in July. This fact, combined with the early breeding of the Painted Storks indicates that ecological changes are taking place. Darters, Cormorants, Night Herons and Paddy Birds commence breeding by April-May, followed by the Egrets, Openbill Storks and White Ibises. At Ranganathittu nature provides optimum breeding conditions to different species at different times.

Come summer, a few pre-monsoon showers prompt local farmers to plough the fields after spreading

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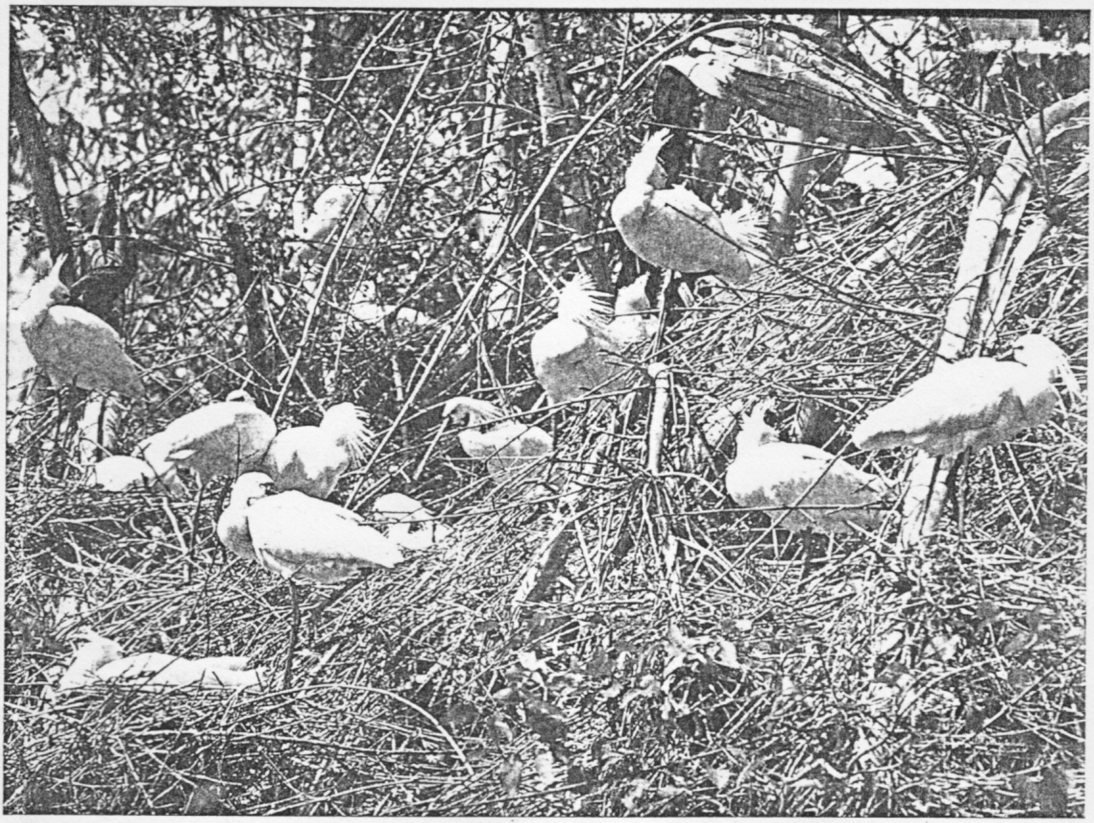
Breeding birds of Ranganathittu



Several birds breed at Ranganathittu: Three species of Cormorants, (Large Cormorant, *Phalacrocorax carbo*; Indian Shag, *P. fuscicollis*; Little Cormorant, *P. niger*); four species of Egrets, (Large Egret, *Ardea albamodesta*, Median Egret *Egretta intermedia*, Little Egret *Egretta garzetta*, Cattle Egret *Bubulcus ibis);* White Ibis *Threskiornis aethiopica*; Spoonbill *Platalea leucorodia **(above)***; Openbill Stork *Anastomus oscitans*; Darter or Snake bird *Anhinga rufa*; Night Heron *Nycticorax nycticorax*; Pond Heron *Ardeola grayii* and the Purple Heron *Ardea purpurea*.

cart-loads of farmyard manure. They thus keep the fields ready to receive the canal waters from the upstream Krishnarajasagar reservoir. The heronry birds instinctively wait for these agricultural operations to commence as this delivers a bounty in the shape of insects, earthworms, frogs, crabs and snails. Food supply is assured for the next few months enabling them to breed and sustain their brood. Soon the heronry starts congregating on the vegetation of the islets.

Colours of life

The silence of the wetlands is perceptibly broken when the breeding season approaches. The birds can now be heard grunting, moaning and croaking as courting and breeding rituals play themselves out. To match the ambience of the moment the birds now adorn themselves in nuptial costumes. The golden buff colours of the Cattle Egrets, the long diaphanous dorsal ornamental plumes of the Large Egrets, often kept erect like "a halo of mist", now come into their own. Fortunately, egrets are no longer slaughtered for the value of these breeding embellishments.

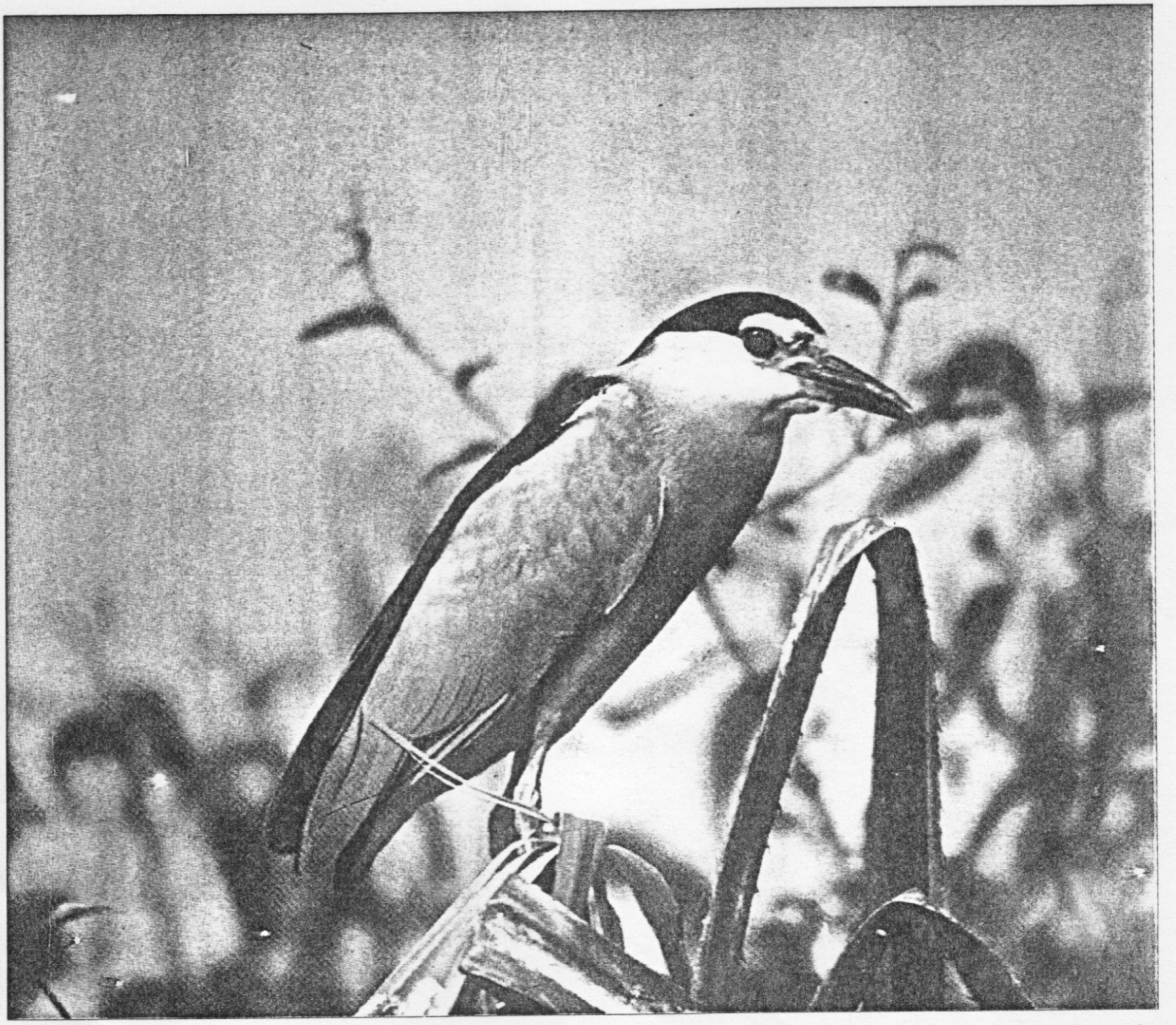
Multiplication is truly the name of the game now, with courtship and pairing taking priority over all else. Snow-white Cattle Egrets turn a delicate golden buff on the head, neck and back. To add to their dramatic appearance their bills become blood red. The Median Egrets meanwhile put on snow-white ornamental plumes spread out in showers on their backs and breasts. An attractive yellowish green colour develops on their orbital skins and on the lores. Their captivating beauty has been best expressed by the late M. Krishnan, who, enamoured by the egrets of Ranganathittu, referred to them as "celestial ballet dancers". The Little Egrets sport a pair of long,

A Cattle Egret, Bubulcus ibis, *displays its nuptial garb. The birds generally choose to nest between November to March in southern India and between June to August in the north. Opportunistic feeders, the egrets are named after their penchant for trailing livestock, to pick up disturbed insects in their wake.*

narrow, drooping nuchal plumes in the breeding season and appropriately, develop a pink colour on the lores and on the orbital skin. This subspecies breeds away from the regular yellow-footed variety. Spoonbills meanwhile wear short, bushy nuchal crests often erected in display against other intruding birds that wander too close to their nests. Large Cormorants, jet-black as they are, add curiously impressive white feathers on the head and the neck to attract mates. The Indian Shag develops white feathery tufts behind its eyes and on each side of its neck. The Paddy Bird or Pond.Heron acquires maroon plumes on its back and a long white occipital crest. Normally drab looking specimens turn stunningly beautiful in the breeding season. Take my word for it, the breeding season is the most impressive time to visit Ranganathittu, provided, of course, you respect the ground rules: no noise, no close approaches, no disturbance.

Struggle for Survival

The world of nature is far from 'peaceful'. Competition between individuals is almost a constant refrain in Ranganathittu. At the start of the breeding season birds aggressively jockey for nesting sites on all available vegetation. This is, of course, interspersed with competition for mating partners. Once the pairing issue is settled, the birds get busy collecting and transporting nesting material to chosen sites. For all their apparently fussy ways in arranging and rearranging things, not all birds are good artisans. Unlike the Weaver and Tailor birds the end product made by most birds leaves much to be desired by way of human aesthetics, but no one can deny their diligence and commitment. Essentially the nests are skimpy platforms of twigs and sticks padded with leaves. Each species, tends to segregate itself into



The Night Heron, Nycticorax nycticorax, *is distributed almost throughout the Indian subcontinent. They generally prefer to rest up during the day, moving out at dusk to hunt crabs, fish, frogs and small animals through the night. They nest in colonies in leafy trees, laying four to five eggs. Both parents share the task of protecting and bringing up the young.*

discreet "*mohallas*", in the words of the late Dr. Salim Ali.

The peak egg-laying season is in between June and July, though some species do sporadically lay eggs earlier or later. Many birds are forced to lay two or three clutches of eggs because of nest-robbing by crows, predation by raptors and, often sometimes, loss on account of floods.

By August, when most eggs hatch another ambience takes hold of Ranganathittu. Nests are now replete with hungry young and the parent birds make repeated sorties to feed the squealing nestlings that will soon grow into even more hungry fledglings. With every passing day the feeding frenzy gets more acute. As the parents alight at the nest, the squealing takes on a near aggressive tone in its sheer persistence. Egret, White Ibis, Cormorant and Darter fledglings all insert their beaks right into the parent's mouth and wrestle vigorously with the food in their haste to swallow it. Fledglings of Openbill Storks appear a touch more dignified as they gather around their parents in a semicircle wailing patiently till the parents disgorge food on to the floor of the nest. At this point, of course, all hell breaks loose! Ever-hungry, the young ones keep pecking at the parent's bills for repeated disgorgements. The whole atmosphere is charged with the intense activity of procreation and nurturing. All this for a purpose. Parent birds have a crucial investment in the emerging generation. Newborns, after all, are the only means individuals have of ensuring the continuity of their genetic stock.

New beginning

The fledglings soon begin to demand more food than their parents can provide. They must now learn to fly

Sharing the bird haven: When waders and waterfowl depart, another set of birds take advantage of the bounty of Ranganathittu. These include the Great Stone Plovers *Esacus magnirostris*, Indian River Tern *Sterna aurantia*, Redwattled Lapwing *Vanellus indicus*, Pied Kingfisher *Ceryle rudis*, Small Blue Kingfisher *Alcedo atthis*, Indian Cliff Swallow *Hirundo fluvicola*, Large Pied Wagtail, *Motacilla maderaspatensis*, Baya Weaver Bird *Ploceus philippinus* **(above),** Streaked Weaver Bird *Ploceus manyar*, Munias *Lonchura sp.*, Lesser Whistling Teal *Dendrocygna javanica*, Spotbill or Grey Duck *Anas poecilorhyncha* and Whitenecked Stork *Ciconia episcopus*.

The Common Peafowl, however, is a resident bird, and breeds on the main island. There are other common arboreal birds of which Tickell's Blue Flycatcher *Muscicapa tickelliae,* found on the banks is particularly attractive. The Great Stone Plover, the Indian River Tern and the Redwattled Lapwing lay eggs on exposed rocks in the river and are among Ranganathittu's most well studied and photographed birds. My favourite, however, is the Indian Cliff Swallow. Hundreds of mud-nests built by swallows can be seen on a single projected rock upstream. The fish eating raptor, Osprey *Pandion haliaetus* and Harriers *Circus sp.*, visit the sanctuary in winter. The Crested Serpent Eagle *Spilornis cheela*, the Shikra *Accipiter badius* and the Brahminy Kite *Haliastur indus* are resident raptors. The Crested Hawk-Eagle *Spizaetus cirrhatus* was a rare sighting, seen recently for only a few days in the heronry. The bird took a severe toll of defenceless residents. The common Pariah Kite *Milvus migrans,* the House Crow and the Jungle Crow *Corvus sp.,* scavenge the surrounds, the latter even stealing eggs from nests. The Brown Headed Gull *Larus brunnicephalus* once common in winter, is rarely seen now.

and provide for themselves. The first few lessons are hesitant and may even be fatal. By September-October, however, the survivors are seen flying confidently from tree to tree and then islet to islet. By October the waters in the river recede exposing the submerged rocks. Sub-adults hold 'communal' gatherings on these mini-islands while their parents continue their eternal hunt for food.

By November the reservoir recedes even further. The canals stop flowing, the once lush green paddy fields turn yellow, the corn ripens and the harvesting season comes to an end. Heronry birds that arrived to breed from far off now instinctively know that food will be in short supply. The sub-adults too begin their search for newer pastures. By the end of November most 'temporary tenants' have left, only to return in the next breeding season.

But everything in nature is cyclical, including land use. After the waders and water birds leave, Ranganathittu prepares to welcome yet another set of avians (See facing page).

In the waters

Marsh crocodiles *Crocodylus palustris* live in the river, but cannot normally be sighted when the river is in spate. When the submerged rocks are exposed after the waters recede they can be seen basking. These reptiles also breed here but nesting sites are at a premium and two or three crocodiles have lost their legs in intra-specific bouts. Otters, frequently seen in the seventies are rare today. This is another critical ecological change that requires study. Indian flying foxes *Pteropus giganteus* are permanent residents of the sanctuary and can be seen roosting noisily on the bigger trees lining the river banks. Along with the *mahaseer*, 12 other species of fish are found in the waters around Ranganathittu.

Botanists from the Mysore University confirm that new species of plants have been discovered at Ranganathittu.

Troubled waters

The sudden release of waters from the reservoir of the Krishnaraj Sagar Dam upstream in the rainy season causes heavy damage to the breeding birds and to the vegetation on the islets. This flood is released to the accompaniment of a special *puja* (prayer) performed by the Chief Minister, no less. The irascible bonnet macaques *Macaca radiata* used to swim to the islets and damage nests in the seventies, but they were captured and sent to far off forests out of concern for the breeding birds. Irascible tourists, however, continue to disturb the birds. As though the disturbance caused by noise and garbage were not enough, crows follow tourist boats to steal the eggs and, sometimes, even young chicks. A common palm civet *Paradoxurus hermaphroditus* also called the toddy cat was once spotted en route to the boating site in a bamboo grove.

As we have seen earlier ecological changes over the years have led to changes in breeding periods. In the seventies Spoonbills for instance, were observed nesting in July (Neginhal S.G., 1983, J.B.N.H. Soc. 793) in small numbers. Now the birds nest in February-March, in much greater numbers. The same is true for Purple Herons. The pink-footed Little Egrets were fewer in number (two to three pairs), but they now are increasing. The Painted Stork which was not recorded earlier in this sanctuary can be seen flocking in great numbers now to breed there. Conversely the four species of Egrets, White Ibises, Openbill storks and all three species of Cormorants breed in lesser numbers today. The Large Cormorant has virtually abandoned Ranganathittu. By my estimation their populations have been reduced by half compared to the seventies.

Trouble in paradise

No one has really studied the changes in and around Ranganathittu. Paddy fields have, for instance, been replaced by the money spinner, sugarcane. This water and pesticide demanding crop now extends across 75 per cent of the cropland area. Fertilisers and chemical pesticides including urea, poison the ecosystem and organochlorines adversely affect the growth of micro and macro-organisms that make up the major food-chain of the birds. Working their way up the food chain, pesticides ultimately enter their bodies and result in the thinning of egg-shells. When parent birds sit on the eggs to brood, the casings crack. This unwanted side-effect is common knowledge among scientists, but their views do not have an impact on land managers.

Adding to these problems are the toxic effluents from the upstream Mandya Paper Mills. The reservoir water deeply poisoned by pesticides, also affects the populations of fish. This in turn harms fish-eating birds like Cormorants and Darters. As we watch area after area ruined by those claiming to develop India, the question begs to be asked: "What is it in the composition of society today which blinds us to the destruction we cause to nature?" Man-caused floods, purposeful poisoning, uncontrolled tourism all thrive in an ocean of public apathy. Those of us who know that such impacts ultimately degrade the quality of human life are forced to sit by powerlessly and watch the destruction. But somewhere inside us we hope for the day when reason prevails and a better world emerges for birds and their protectors. ❍

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